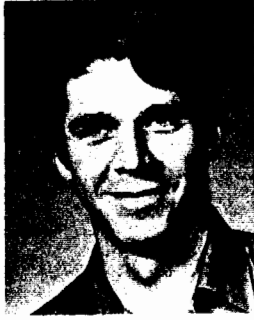


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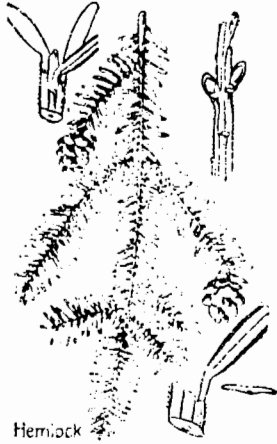


## Natural History Notes



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### THE HEMLOCK



The forests of northern Wisconsin contribute to the beauty that attracts our many visitors. Tourists return year after year, never seeming to get bored with the scenery. Others love this area so much they make it their home, never getting tired of the almost endless landscape of trees. The discerning eye recognizes the infinite diversity and great variety of trees that occur in our forests.

Of these forests, the hemlock is a common inhabitant. It is a conifer (cone-bearing) with needles about 1/2 inch long. The flattened dark green needles are shiny on top and whitish beneath. This evergreen grows to a height of 100 feet with a diameter of about four feet. The trunk is straight and gradually tapering, giving it a pyramid-like form. The bark is up to 3/4 inch thick, dark gray to reddish with deeply cut grooves and somewhat scaly.

The hemlock ranges from the east coast to Minnesota. It was a common tree in the forests of northern Wisconsin prior to 1850. After that time, extensive logging followed by land clearing and wild-fires caused the conversion of the hemlock and hardwood forests to the hardwoods or white birch and aspen that occurs today. Under ideal conditions virgin hemlock will yield up to 20,000 board-feet of lumber per acre. The wood of the hemlock is coarse and holds up poorly where exposed to the weather. As a result, the white pine was taken first by the loggers. Other species, including the hemlock, were

harvested later. Hemlock wood weighs about 20 lb. per cubic foot and is relatively soft with a "brash" odor. Yet its wood is tough and difficult to work with. However, many local buildings constructed after 1900 were built with hemlock lumber sawed at area mills. The primary use of hemlock today is for pulp.

Seeds are produced in cones about 3/4 inch long. About 13 million seeds are produced per acre but only 25% are capable of germinating. Generally, hemlock trees begin producing seed at 40 years of age and continue to produce till they are over 450 years old.

Hemlocks grow in dense shade in early years, but once released to the sun will grow much faster. Sometimes a tree one inch in diameter may be over 100 years old, a 10-inch tree may be over 300. The average longevity of the hemlock is 600 years, the record being 988 years.

Seedlings grow up to two inches the first year and up to two feet in ten years. Seedling survival depends upon consistent moisture, lack of competition from other trees or shrubs and adequate light. A dense understory will prevent seedling survival. Hemlock roots are shallow and sensitive to drought or injury caused by heavy logging. The trees are subject to windthrow.

Hemlock trees are an important component of wildlife habitat. The seeds and young saplings provide food for many animals. They are also important browse and cover for the white-tail deer. Pure stands of hemlock are important for the winter survival of wildlife. Their dense closed canopy reduce wind velocity and snow depth and serve as protection against the harsh winters. Hemlock inclusions near winter feeding areas are important. Animals can take cover in the hemlock groves and move out to nearby feeding areas during severe winter conditions.

Maintaining our diminishing hemlock is a challenge and should be a prime forest management objective. This tree provides beauty and essential wildlife cover and gives us a picture of what our virgin forests were like.